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TRANSMITTAL OF APPEAL BRIEF (Large Entity)

Docket No. NRT.0098US

In Re Application Of: **Patrick N. Sollee**

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
09/881,594	06-14-2001	Uzma Alam	21609	2157	6422

Invention: **Providing Telephony Services to Terminals Behind a Firewall and/or a Network Address Translator**

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Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on

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05/31/2006 CNGUYEN2 00000075 09881594
01 FC:1402 500.00 OP

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Dated: **May 25, 2006**

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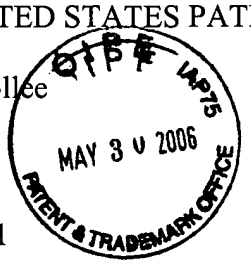

Applicant:	Patrick N. Sollee	§	Art Unit:	2157
Serial No.:	09/881,594	§		
		§	Examiner:	Uzma Alam
Filed:	June 14, 2001	§		
For:	Providing Telephony Services to Terminals Behind a Firewall and/or a Network Address Translator	§	Atty. Dkt. No.:	NRT.0098US (14529RRUS01U)

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APPEAL BRIEF PURSUANT TO 37 C.F.R § 41.37

Sir:

The final rejection of claims 1-7, 25, 26, and 30-39 is hereby appealed.

I. REAL PARTY IN INTEREST

The real party in interest is Nortel Networks Limited.

II. RELATED APPEALS AND INTERFERENCES

None.

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Date of Deposit: May 25, 2006

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III. STATUS OF THE CLAIMS

Claims 1-7, 25, 26, and 30-39 have been finally rejected and are the subject of this appeal.

Claims 8-24 and 27-29 have been cancelled.

IV. STATUS OF AMENDMENTS

No amendments have been filed after final rejection.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The following provides a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number and to the drawings by reference characters, as required by 37 C.F.R. § 41.37(c)(1)(v). Each element of the claims is identified by a corresponding reference to the specification and drawings where applicable. Note that the citation to passages in the specification and drawings for each claim element does not imply that the limitations from the specification and drawings should be read into the corresponding claim element.

Independent claim 1 recites a method for use in communications involving a first terminal (Fig. 1:24, Fig. 4:DEVICE A, DEVICE B) that is coupled to one side of a firewall and network address translator (Fig. 1:28, Fig. 4:FNA, FNB; Spec., 7:21-8:5), the method comprising:

> sending, by the first terminal, a message identifying the first terminal to a node (Fig. 1:42, 43, Fig. 4, AS1, AS2) on another side of the firewall and network address translator (Spec., 12:9-13:26, 15:8-14; Fig. 4:302, 306, 316);
>
> receiving, by the first terminal, another message from the node, wherein the messages between the first terminal and the node causes creation of a path through the

firewall and network address translator (Spec., 13:27-14:22, 15:8-14, 15:21-25; Fig. 4:310, 312, 316); and

repeatedly sending keep-alive messages to maintain the path through the firewall and network address translator (Spec., 14:23-15:7, 15:14-20; Fig. 4:314, 322).

Independent claim 25 recites a device (Fig. 1:24, 42, 43; Fig. 4:DEVICE A, DEVICE B; AS1, AS2) capable of being used in communications through a firewall and network address translator (Fig. 1:28, Fig. 4:FNA, FNB), the device comprising:

an interface (Fig. 1, 24, 42, 43; Fig. 2:104) adapted to exchange messages with a node (Fig. 1:42, 43, 24) on another side of the firewall and network address translator, the exchange of messages with the node to create a path through the firewall and network address translator (Spec., 12:9-14:22, 15:8-25; Fig. 4:314, 322, 310, 312, 316); and

a controller adapted to repeatedly send keep-alive messages to maintain the path through the firewall and network address translator (Spec., 14:23-15:7, 15:14-20; Fig. 4:314, 322).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. Claims 1-4, 7, 25, 26, 30, 31, 33, 34-36, 38, and 39 Rejected Under 35 U.S.C. § 102 Over U.S. Patent Application Publication No. 2002/0284316 (Thomas).

B. Claims 5, 6, 32, and 37 Rejected Under 35 U.S.C. § 103 Over Thomas in view of U.S. Patent Application Publication No. 2002/0037723 (Roach).

VII. ARGUMENT

The claims do not stand or fall together. Instead, Appellant presents separate arguments for various independent and dependent claims. Each of these arguments is separately argued below and presented with separate headings and sub-headings as required by 37 C.F.R. § 41.37(c)(1)(vii).

A. Claims 1-4, 7, 25, 26, 30, 31, 33, 34-36, 38, and 39 Rejected Under 35 U.S.C. § 102 Over U.S. Patent Application Publication No. 2002/0284316 (Thomas).

1. Claims 1-4, 25, and 26.

Independent claim 1 was rejected as being anticipated by Thomas. It is respectfully submitted that the anticipation rejection of claim 1 over Thomas is erroneous, as Thomas does not disclose each and every element of claim 1.

Claim 1 recites sending and receiving messages by the first terminal to cause creation of a path through a firewall and a network address translator, and repeatedly sending keep-alive messages to *maintain* the path through the firewall and network address translator. Note that an ordinary meaning of the term "maintain" is "to keep in an existing state." *See* Merriam-Webster Online Dictionary, definition for "maintain" (attached as Evidence Appendix A). Thomas clearly does not cause a path through a firewall and network address translator to be *maintained* by the periodic sending of keep-alive messages. In Thomas, a MAPI (Messaging Application Programming Interface) client repeatedly *initiates* communications sessions between the MAPI client and an MAPI server through a gateway 18. *See, e.g.,* Thomas, ¶¶ [0039], [0049], [0051], [0056]. The repeated *initiations* of communications sessions is performed at a periodic interval, such as every 30 seconds, every minute, five minutes, ten minutes, and so forth. Thomas, ¶ [0039]. Initiation of a communications session is quite different from maintaining a path. An ordinary meaning of the term "initiate" is "to cause or facilitate the beginning of ...." *See* Merriam-Webster Online Dictionary, definition for "initiate" (attached as Evidence Appendix B).

The fact that Thomas must repeatedly *initiate* communications sessions between the MAPI client and the MAPI server indicates that each previous communications session was disconnected, thereby requiring that a new communications session be initiated. In the final

Office Action, the Examiner made the observation that "[t]he client sends these messages to the server so that during *a* communication session, the server always know [sic] how to connect with the client, which is located behind a firewall and network address translator." 1/18/2006 Office Action at 8 (emphasis added). This statement by the Examiner is contrary to the teachings of Thomas. Thomas clearly contemplates that multiple communications sessions are initiated, with each step of communication initiation performed by the MAPI client. As discussed by Thomas, the presence of the firewall requires the MAPI client to periodically initiate such communications sessions, rather than the MAPI server 10 initiating communications sessions with the MAPI client 22 as conventionally performed. Thomas, ¶ [0033], lines 7-10. Thus, contrary to the assertion made by the Examiner, Thomas does not teach that multiple messages are sent to maintain *one* communications session – rather, Thomas teaches that multiple new communications sessions are repeatedly initiated.

The Examiner further stated that "the client [of Thomas] periodically sends initiation requests so the server can stay connected with the client, or 'maintain *a* path through the firewall and network address translator' as stated in the claim." 1/18/2006 Office Action at 8 (emphasis added). However, the Examiner has misquoted the claim language; the claim actually recites "repeatedly sending keep-alive messages to maintain *the* path through the firewall and network address translator." The difference between "a" (as quoted by the Examiner) and "the" (as recited in claim 1) is significant. Claim 1 makes clear that the path created by messages between the first terminal and the node through the firewall and network address translator is maintained by repeatedly sending the keep-alive messages. In contrast, Thomas teaches the repeated initiation of new connections.

A further error in the Examiner's rejection is the apparent equating by the Examiner of the words "initiate" and "maintain." Appellant had previously submitted objective evidence, in the form of dictionary definitions, that clearly establish that the terms "initiate" and "maintain" have different meanings, as would have been understood by a person of ordinary skill in the art. The Examiner has offered no proof that a person of ordinary skill in the art would consider "initiate" and "maintain" to have the same meaning. The objective evidence establishes that these two terms do not share the same meaning, and therefore, the § 102 rejection of claim 1 over Thomas is clearly erroneous.

Independent claim 25 is similarly not anticipated by Thomas. Claims dependent from claims 1 and 25 are allowable for at least the same reasons as the corresponding independent claims.

In view of the foregoing, reversal of the final rejection of the above claims is respectfully requested.

2. Claim 7.

Claim 7 depends from claim 1 and is thus allowable for at least the same reasons. Moreover, claim 7 recites exchanging messages, by the first terminal, with the node over the path maintained through the firewall and network address translator to establish a *call session*. Thomas clearly does not teach establishing a call session. Thomas teaches use of Microsoft Outlook and Microsoft Exchange software applications to enable communication between client and server of electronic mail messages, calendar items, task items, information about electronic mail, calendar, and task items. In contrast, as defined by the Specification, a "call session refers generally to a real-time, interactive communications session that involves the exchange of real-time data between multiple parties." Specification, p. 7, lines 9-11. The communications

between the client and server taught by Thomas does not constitute a call session, as recited in claim 7.

The final rejection of claim 7 should be reversed for the additional reasons stated above.

3. Claims 30 and 35.

Claims 30 and 35 depend from claims 1 and 25, respectively, and therefore are allowable for corresponding reasons. Moreover, claim 30 recites sending the message and receiving the message to perform registration of the first terminal, wherein repeatedly sending the keep-alive messages to maintain the path through the firewall and network address translator is performed for a duration of the registration of the first terminal. With respect to this element, the Examiner cited ¶¶ [0038]-[0039] of Thomas. 1/18/2006 Office Action at 4. Paragraph [0038] of Thomas refers to a MAPI server using the IP address in the packet header to communicate with the MAPI client for the duration of the session. Note that the "session" referred to in ¶¶ [0038]-[0039] refers to one of the sessions that are repeatedly initiated by the MAPI client. There is absolutely no teaching in these passages of repeatedly sending keep-alive messages to maintain the path through the firewall and network address translator for a duration of the *registration* of the first terminal.

Claim 35 recites similar subject matter.

Therefore, the final rejection of claims 30 and 35 should be reversed for the additional reasons stated above.

4. Claims 31 and 36.

Claims 31 and 36 depend from claims 1 and 25, respectively, and thus are similarly allowable as those claims. Moreover, claim 31 recites maintaining a signaling path between the

first terminal and the node through the firewall and network address translator. The Examiner cited ¶ [0033] of Thomas as disclosing the maintaining of a signaling path. 1/18/2006 Office Action at 5. Paragraph [0033] clearly does not disclose the recited subject matter, as ¶ [0033] refers to the MAPI server initiating communications sessions with the MAPI client, which is possible if no firewall was provided. *See* Thomas, ¶ [0035]. Thus, the MAPI server clearly does not maintain a signaling path between the first terminal and the node through the firewall and network address translator.

Moreover, the repeated session initiations performed by the MAPI client, as taught by Thomas, contradicts the subject matter of claim 31 regarding the *maintenance* of a signaling path through the firewall and network address translator.

Claim 36 recites similar subject matter.

The final rejection of the above claims should be reversed for the additional reasons stated above.

5. Claims 33, 34, 38, and 39.

Claims 33 and 38 depend from claims 1 and 25, respectively, and thus are allowable for similar corresponding reasons. Moreover, claim 33 recites causing a mapping table to be maintained by the firewall and network address translator, where the mapping table contains a mapping between an internal address of the first terminal and an external address of the first terminal. The Examiner cited ¶¶ [0033]-[0037] of Thomas as disclosing this feature. 1/18/2006 Office Action at 5. Thomas clearly does not disclose maintaining such a mapping table. In fact, as expressly taught by Thomas, a new session is initiated each time that the MAPI client wishes to receive new information (such as new e-mail messages) from the MAPI server. As also stated by Thomas, if a communications session is initiated by the MAPI client, then a MAPI server can

use the IP address in the packet header to communicate with the MAPI client for the duration of that session. In other words, in Thomas, maintaining a mapping table is clearly not required.

Claim 38 recites similar subject matter.

The final rejection of the above claims should be reversed for the additional reasons stated above.

B. Claims 5, 6, 32, and 37 Rejected Under 35 U.S.C. § 103 Over Thomas in view of U.S. Patent Application Publication No. 2002/0037723 (Roach).

1. Claims 5 and 6.

Claim 5, which depends indirectly from claim 1, was rejected as being obvious over Thomas and Roach. It is respectfully submitted that the Examiner has failed to establish a *prima facie* case of obviousness against claim 5, as no motivation or suggestion existed to combine the teachings of Thomas and Roach. *See* M.P.E.P. § 2143 (8th ed., Rev. 3), at 2100-135.

Claim 5 recites that sending the identifying message (for identifying the first terminal to a node on the other side of the firewall and network address translator) comprises sending a Session Initiation Protocol REGISTER message. The Examiner conceded that Thomas does not disclose the SIP REGISTER message. 1/18/2006 Office Action at 6. However, the Examiner relied upon Roach as disclosing this message. *Id.*

Except for the teachings of the disclosure of the present invention, there does not exist any other evidence that would have provided the requisite suggestion or motivation to combine the teachings of Thomas and Roach. The mechanism described in Thomas relates to the initiation of communications sessions by a MAPI client with a MAPI server to enable the MAPI client to receive electronic mail, calendar items, and task items from the MAPI server. There is absolutely no suggestion whatsoever within Thomas that the concerns associated with MAPI

clients and servers are applicable to other types of communications involving other protocols, such as the Session Initiation Protocol. Roach also does not provide any suggestion that the SIP REGISTER message described in Roach is applicable to an MAPI environment, such as that described in Thomas.

The Examiner merely stated that "[i]t would have been obvious to a person of ordinary skill in the art at the time of the invention to combine registering messages with the SIP REGISTER message of Roach with sending messages of Thomas." 1/18/2006 Office Acton at 6. There does not appear to be any objective evidence supporting this conclusion. A person of ordinary skill would not have used SIP messages for retrieval of e-mails as performed using the MAPI mechanism taught in Thomas. In fact, substituting the SIP messages into the system of Thomas would likely render Thomas inoperable for its intended purpose, since SIP generally is used for establishing call sessions, such as telephony voice call sessions or multimedia call sessions.

Therefore, the Examiner has failed to establish a *prima facie* case of obviousness. In view of the foregoing, reversal of the final rejection of the above claims is respectfully requested.

2. Claims 32 and 37.

Claims 32 and 37 were also rejected as being obvious over Thomas and Roach. Claim 32 recites maintaining a SIP signaling path through the firewall and the network address translator. This feature is clearly not disclosed or suggested by Thomas, which teaches communication between a MAPI client and MAPI server. Roach similarly fails to teach or suggest maintaining a SIP signaling path through the firewall and the network address translator. In fact, neither a firewall nor a network address translator is mentioned anywhere in Roach – therefore, Roach

clearly would not have suggested maintaining a SIP signaling path through the firewall and network address translator, as recited in the claims.

Therefore, a *prima facie* case of obviousness has not been established with respect to claims 32 and 37 for at least the reason that the hypothetical combination of Thomas and Roach does not teach or suggest all elements of the claims.

Moreover, as explained above, there existed no motivation or suggestion to combine the teachings of Thomas and Roach to achieve the claimed subject matter.

Reversal of the final rejection of the above claims is respectfully requested.

VIII. CONCLUSION

In view of the foregoing, reversal of all final rejections and allowance of all pending claims is respectfully requested.

Respectfully submitted,

Date: May 25, 2006

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APPENDIX OF APPEALED CLAIMS

The claims on appeal are:

1. A method for use in communications involving a first terminal that is coupled to one side of a firewall and network address translator, the method comprising:

sending, by the first terminal, a message identifying the first terminal to a node on another side of the firewall and network address translator;

receiving, by the first terminal, another message from the node, wherein the messages between the first terminal and the node causes creation of a path through the firewall and network address translator; and

repeatedly sending keep-alive messages to maintain the path through the firewall and network address translator.

2. The method of claim 1, further comprising receiving a call request, by the first terminal, from the node over the path maintained through the firewall and network address translator.

3. The method of claim 1, wherein repeatedly sending the keep-alive messages is based on a timer in the first terminal.

4. The method of claim 1, wherein sending the identifying message comprises sending a registration message to register the first terminal with the node.

5. The method of claim 4, wherein sending the registration message comprises sending a Session Initiation Protocol REGISTER message.

6. The method of claim 5, wherein sending the registration message comprises sending the registration message to a Session Initiation Protocol proxy, the node comprising the Session Initiation Protocol proxy.

7. The method of claim 1, further comprising exchanging messages, by the first terminal, with the node over the path maintained through the firewall and network address translator to establish a call session.

25. A device capable of being used in communications through a firewall and network address translator, the device comprising:

an interface adapted to exchange messages with a node on another side of the firewall and network address translator, the exchange of messages with the node to create a path through the firewall and network address translator; and

a controller adapted to repeatedly send keep-alive messages to maintain the path through the firewall and network address translator.

26. The device of claim 25, further comprising a timer to determine timing of the keep-alive messages.

30. The method of claim 1, wherein sending the message and receiving the message are used to perform registration of the first terminal, and

wherein repeatedly sending the keep-alive messages to maintain the path through the firewall and network address translator is performed for a duration of the registration of the first terminal.

31. The method of claim 1, wherein maintaining the path through the firewall and network address translator comprises maintaining a signaling path between the first terminal and the node through the firewall and network address translator.

32. The method of claim 31, wherein maintaining the signaling path comprises maintaining a Session Initiation Protocol (SIP) signaling path through the firewall and network address translator.

33. The method of claim 1, wherein repeatedly sending the keep-alive messages to maintain the path through the firewall and network address translator causes a mapping table to be maintained by the firewall and network address translator, the mapping table containing a mapping between an internal address of the first terminal and an external address of the first terminal.

34. The method of claim 33, wherein timing of repeatedly sending the keep-alive messages is controlled by a timer, and wherein repeatedly sending the keep-alive messages is performed at a periodic interval sufficient to prevent closing of the mapping caused by time-out in the firewall and network address translator.

35. The device of claim 25, wherein the interface is adapted to exchange messages with the node to perform registration of the device, and

the controller repeatedly sends keep-alive messages to maintain the path through the firewall and network address translator for a duration of the registration of the device.

36. The device of claim 25, wherein the controller repeatedly sends keep-alive messages to maintain a signaling path through the firewall and network address translator between the device and node.

37. The device of claim 36, wherein the signaling path comprises a Session Initiation Protocol (SIP) signaling path through the firewall and network address translator between the device and node.

38. The device of claim 25, wherein the controller repeatedly sending keep-alive messages to maintain the path through the firewall and network address translator causes a mapping table to be maintained by the firewall and network address translator, the mapping table containing a mapping between an internal address of the device and an external address of the device.

39. The device of claim 38, further comprising a timer to determine timing of the keep-alive messages, wherein the timer causes the keep-alive messages to be sent at a periodic interval sufficient to prevent closing of the mapping caused by a time-out in the firewall and network address translator.

EVIDENCE APPENDIX

(A) Merriam-Webster Online Dictionary, definition for "maintain."

(B) Merriam-Webster Online Dictionary, definition for "initiate."

The evidence listed above was submitted with the Amendment mailed October 19, 2005.

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Merriam-Webster Online Dictionary

Thesaurus

One entry found for **maintain**.

Main Entry: **main·tain**
Pronunciation: mAn-'tAn, m&n-
Function: *transitive verb*
Etymology: Middle English *mainteinen,* from Old French *maintenir,* from Medieval Latin *manutenEre,* from Latin *manu tenEre* to hold in the hand
1 : to keep in an existing state (as of repair, efficiency, or validity) **:** preserve from failure or decline <*maintain* machinery>
2 : to sustain against opposition or danger **:** uphold and defend <*maintain* a position>
3 : to continue or persevere in **:** CARRY ON, KEEP UP <couldn't *maintain* his composure>
4 a : to support or provide for <has a family to *maintain*>
b : SUSTAIN <enough food to *maintain* life>
5 : to affirm in or as if in argument **:** ASSERT <*maintained* that the earth is flat>
- **main·tain·abil·i·ty** /-"tA-n&-'bi-l&-tE/ *noun*
- **main·tain·able** /-'tA-n&-b&l/ *adjective*
- **main·tain·er** *noun*

synonyms MAINTAIN, ASSERT, DEFEND, VINDICATE, JUSTIFY mean to uphold as true, right, just, or reasonable. MAINTAIN stresses firmness of conviction <steadfastly *maintained* his innocence>. ASSERT suggests determination to make others accept one's claim <*asserted* her rights>. DEFEND implies maintaining in the face of attack or criticism <*defended* his voting record>. VINDICATE implies successfully defending <his success *vindicated* our faith in him>. JUSTIFY implies showing to be true, just, or valid by appeal to a standard or to precedent <the action was used to *justify* military intervention>.

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Thesaurus

3 entries found for **initiate**.
To select an entry, click on it.

initiate[1,transitive verb]
initiate[2,adjective]
initiate[3,noun]
Go

Main Entry: **[1]ini·ti·ate**
Pronunciation: `i-'ni-shE-"At`
Function: *transitive verb*
Inflected Form(s): **-at·ed; -at·ing**
Etymology: Late Latin *initiatus,* past participle of *initiare,* from Latin, to induct, from *initium*
1 : to cause or facilitate the beginning of **:** set going <*initiate* a program of reform> <enzymes that *initiate* fermentation>
2 : to induct into membership by or as if by special rites
3 : to instruct in the rudiments or principles of something **:** INTRODUCE
synonym see BEGIN
- ini·ti·a·tor /-"A-t&r/ *noun*

For More Information on "initiate" go to Britannica.com

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RELATED PROCEEDINGS APPENDIX

None.